

REMARKS

Applicant is in receipt of the Office Action mailed February 23, 2005.

Claims 7-10, 13-14, and 17-24 were pending in the application prior to the present amendment.

Claims 1-6, 11-16, and 23-24 are now canceled.

Claims 7-10 and 17-22 are herein amended.

Claims 25-33 are herein added.

Thus, Claims 7-10, 17-22, and 25-33 will be pending in the application after entry of the present amendment.

Art Rejections

Independent claims 7 and 17 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Morein (USPN 6457034) in view of Haeberli et al., Journal Publication (Computer Graphics, v24, n4, August 1990, herein referred to simple as Haeberli).

Independent claim 23 was rejected under 35 U.S.C. Section 103(a) as being unpatentable over Morein in view of Haeberli et al., and further in view of Murata et al. (USPN 5621866), and further in view of Takeuchi (USP Application # 2002/0082081).

Dependent claims 8-10, 13-14, 18-22, and 24 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over combinations of two or more of the cited prior art.

Claims 13-14 and 23-24 are canceled.

Claim 7 as amended herein recites:

A method comprising:

- (a) reading a first stream of image pixels corresponding to an image X_K from an image memory;
- (b) reading a second stream of pixels corresponding to an image A_K from an accumulation buffer;

- (c) blending each image pixel of the image X_K with the corresponding pixel of the image A_K based on an alpha value provided with the image pixel, and thus, generating a third stream of output pixels defining an image A_{K+1} ; and
- (d) transferring the third stream of output pixels to the accumulation buffer;
- (e) performing (a), (b), (c) and (d) for each image after the first image of a sequence of N images X_K , for $K = 0, 1, 2, \dots, N-1$.

Morein and Haeberli either singly or in combination do not teach or render obvious “blending each image pixel of the image X_K with the corresponding pixel of the image A_K based on an alpha value provided with the image pixel”. In fact, the blending process as taught by Morein is provided in column 5, line 64 through column 6, line 1:

“Blending color data from the drawing buffer 140 with that stored in the first accumulation buffer 170 may be accomplished by simply adding the color data stored in the drawing buffer 140 to the accumulated color data stored in the first accumulation buffer 170.”

The blending process as taught by Haeberli is provided in Section 3.2 on page 311:

“The accumulation buffer provides 16 bits to store each red, green, blue, and alpha color component, for a total of 64 bits per pixel. The primary operations that may be applied to the Accumulation Buffer are: 2. Add with weight. Each pixel in the drawing buffer is added to the accumulation Buffer after being multiplied by a floating-point weight that may be positive or negative.”

Note that Haeberli does **not** teach that the weight is specific for each pixel, or that the weight for each pixel is the corresponding alpha value. Instead, Haeberli teaches “a floating-point weight that may be positive or negative”. Consequently, Haeberli teaches away from using alpha as the weight since alpha is only a positive value.

Therefore, Applicant submits that claim 7 and its dependent claims are non-obvious and patentably distinguished over Morein and Haeberli for at least the reasons given above.

Applicant further submits that claim 17 and its dependent claims are also non-obvious and patentably distinguished over Morein and Haeberli for at least the reasons given above in support of claim 7.

In addition, Morein and Haeberli do not teach or render obvious the limitation included in new claim 25 that recites “a plurality of 2D images X_K , wherein the plurality of 2D images include a sequence of at least N slices through a 3D image representing one or more 3D objects”.

Therefore, Applicant further submits that claim 25 and its dependent claims are non-obvious and patentably distinguished over Morein and Haeberli for at least the reason given above, as well as the reasons given in support of claim 7.

CONCLUSION

Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert & Goetzel PC Deposit Account No. 50-1505/5681-14000/JCH.

Also enclosed herewith are the following items:

- ☒ Return Receipt Postcard
- ☒ Notice of Change of Address

Respectfully submitted,



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